SUGGESTIONS

for

SCHOOL STATION PLANNING

including

Several Station Diagrams

Compiled from a Survey

Conducted During the

SCHOOL BROADCASTERS' SEMINAR

at Allerton

June, 1952

NATIONAL ASSOCIATION OF EDUCATIONAL BROADCASTERS

The problem of facilities was discussed at the School Broadcasters' Seminar sponsored by the NAEB and held at Allerton House, Monticello, Illinois, in June, 1952.

An important conclusion from the discussion was that the size and arrangement of an educational radio station depended upon the individual situation: how much space was available, what is the appropriation, what kind of equipment, the size of the staff, etc.

A survey was taken among the broadcasters to obtain their suggestions regarding school station facilities and equipment. Their suggestions are contained in this booklet along with rough plans of individual stations.

Adequate and properly arranged space was found to be the primary factor in planning studios, control rooms, and offices for an educational radio station. Other important factors to be considered are the quality of station equipment and the amount of such equipment.

While the broadcasters agreed on the important questions of equipment and quality, it must be remembered that each individual situation demands individual planning.

PLANNING SPACE

I General Recommendations

A. Centralize the station's quarters.

B. If the station is in a school building, it should be fairly separate from the general activity of the school.

C. Arrange for more space than you think is needed.

D. Provide for future expansion of
1. Studios
2. Control Rooms
3. Offices
4. Storage space

II Control Rooms and Studios

A. Each studio should have its own control room.

B. Start with at least 2 studios and 2 control rooms.
1. Studios should be fairly large
2. Each control room with its own console

C. Another studio and control room for rehearsal and production.

D. An audition room for hearing tapes and transcriptions should be separate from other studio operations.

E. A separate room for class work, writers' workshop, student staff, or committee work.

F. A direct route is needed between the control room and the studio.

G. Build any new studios with TV in mind.

III Storage space

A. A very vital factor in planning.

B. See diagrams as to some arrangements.

IV Offices

A. Should be apart from studio space.

B. Provide private offices for as many key personnel as possible.

C. Secretarial help and equipment should be apart from the school's commercial classrooms. Provide adequate space.

V Miscellaneous

A. Large cloak room for personnel and visitors to the studios

B. If possible, an outside entrance and parking space.

C. Sound absorbing floors in studios and control rooms.

PLANNING EQUIPMENT

I General Recommendations

A. Schools should be directed in purchase of equipment that matches station's units.

B. Information regarding units should be made available to those in need of such advice.

C. Closer correlation with those who sell equipment.

II All equipment of high quality.

A. Equipment should be matched, i.e., RCA turntable with RCA console.

B. 2 to 4 or more professional tape recorders.

III Receivers

A. Insist on FM and TV receivers in classrooms as necessary to successful broadcasting.

B. TV sets should have FM radio built in.

IV Large repair shop

Equipment

Studio Console

The school stations participating in this survey use consoles with from 2 to 6 inputs. The brands most mentioned were:

Western Electric
RCA (76 B 4)
Gates

Turntables

The number of turntables in the school stations range from 1 to 7 per station. The most common numbers per station were 2 and 4. The average is 3.

In addition to turntables in the studio, some stations have turntables at the transmitter, 1 or 2 for audition purposes solely, and a portable turntable for remotes.

RCA and General Electric are brands most mentioned.

The turntables should be capable of playing both lateral and vertical cut records at 78, 33 1/3, and 45 rpm. The tables should accommodate all sizes of records and transcriptions. Appropriate pick-up arms should be considered.

Tape Recorders

The number of tape recorders per station ranges from 1 to 6. Most stations have 2, while the mean is 3. All the stations agree that at least 2 tape recorders should be available in a station, while 4 to 6 is more ideal.

In addition, 1 to 2 portable tape recorders ought to be available for remote use.

The brands mentioned were:

Magnecorder (PT 6 J)	-- Used in 10 stations
Brush "Sound Mirror"	-- Used in 4 stations
Webster	-- Used in 2 stations
Pentron	-- Used in 1 station

Disc Recorders

Of the stations surveyed, six stations had 1 disc recorder; five had 2.

The brands most mentioned were:

RCA
Presto
Scully
Fairchild

Sound Trucks

The majority of school stations possessed only 1 sound truck, although there were one or two that had 2. These sound trucks were equipped with a filter.

Microphones

The number of mikes per station ranged from 4 to 10. The mean average was 7; the mode 8.

The types most mentioned were:

RCA 44 BX	(Velocity)
RCA 77 D	(Polydirectional)
RCA 88 A	(Pressure)
RCA 74 B	(Velocity)
Western Electric 639 A	(Cardiod)
Western Electric	(Dynamic)
Western Electric 630 A	(Eight-ball)

Remote Equipment

Many of the stations have remote equipment in the form of portable recorders, or booths and direct lines to such places as the gym, the music room, the athletic field, the band room, the auditorium, and the board room. One station has on order mobile relay equipment.

Miscellaneous

Several of the stations subscribe to a transcription service.

Two stations have a news ticker.

Most of the stations have either a piano or a Hammond organ.

PLANNING VENTILATION AND HEATING

I Ventilation and heating should be adequately planned when the studios, etc. are first planned.

A. Special care for studios, control rooms, storage space, and offices.

II No motors or mechanisms near studio or control rooms.

MISCELLANEOUS

I Consultants

A. Engage professional consultants as soon as possible.

B. Ask advice of other school station managers and engineers.

II Promote purchase of equipment, etc.

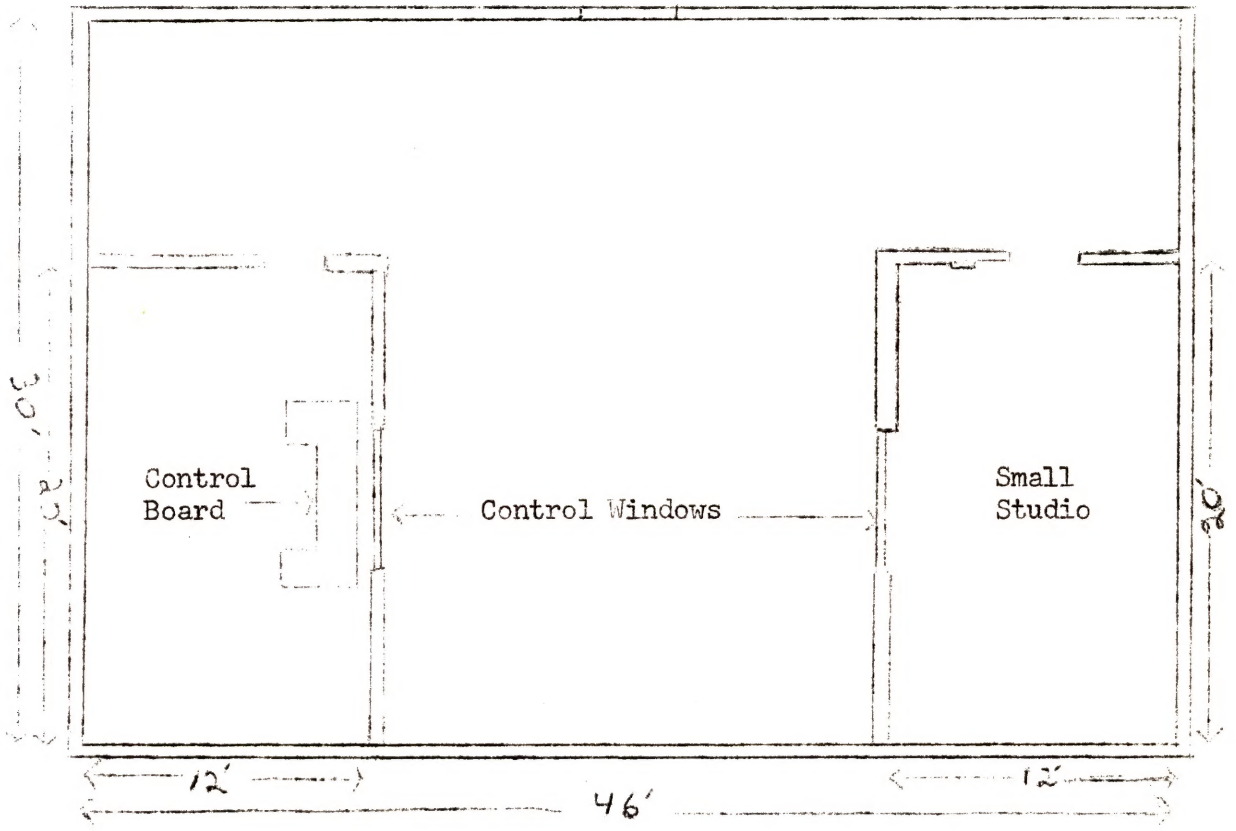
III NAEB should sponsor an engineering seminar.

Copied at NAEB Hqs. 6/30/55-cr

10 Watt School Station

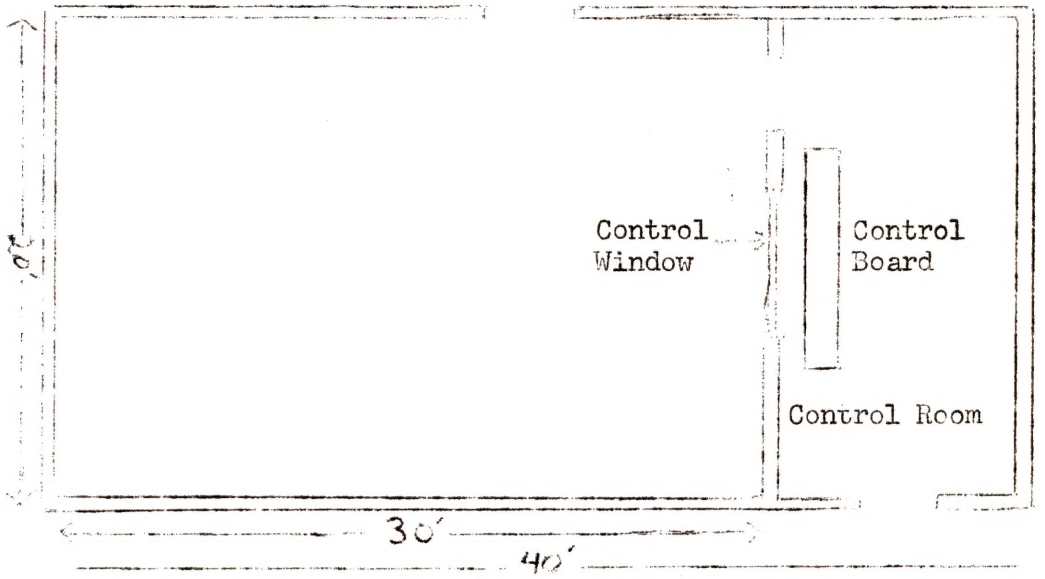
WGPS
Greensboro, North Carolina

Scale: 1" = 8' 0"



Radio Production Shop

Note: A 50' x 30' studio is located directly above Shop.



Remote Studio FM Loop -- J. C. Price School

10 Watt School Station

WVSH
Huntington, Indiana

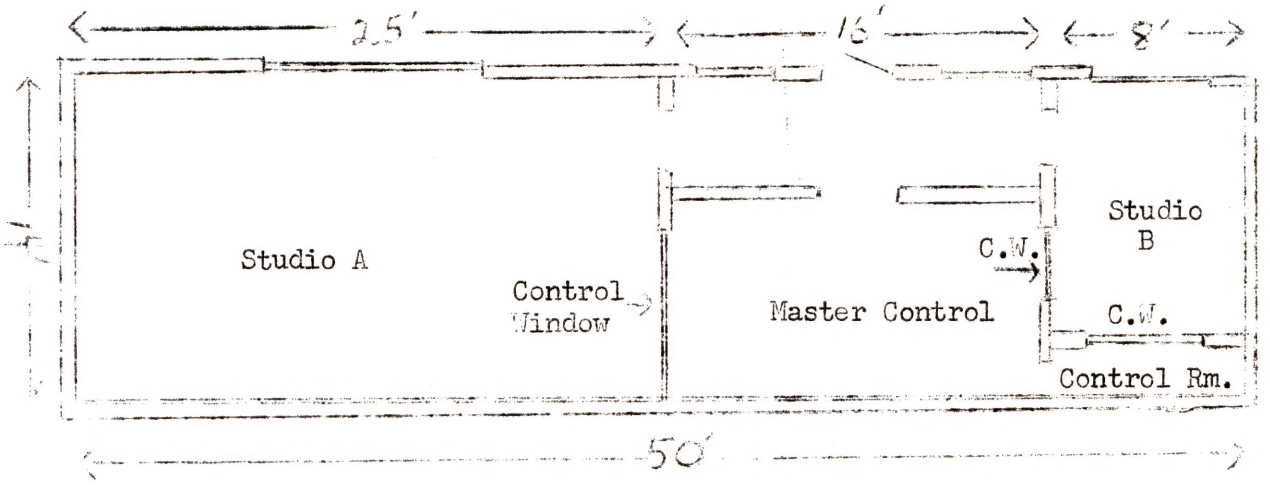
Scale: 1" = 8'0"

Present Studio

The plan below is of the studio and control room section of a new radio section to be added to the school.

Also to be in the new addition:

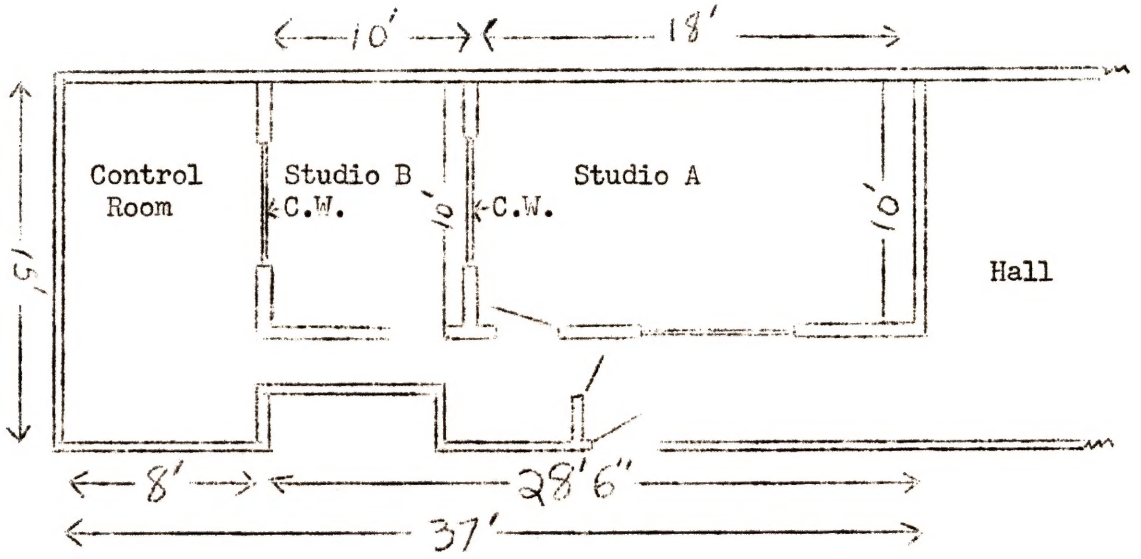
1. Radio Workshop Classroom
2. Record Room
3. Remote Booth in School Auditorium
4. Audio Visual Radio Office



10 Watt School Station

WWHI
Muncie, Indiana

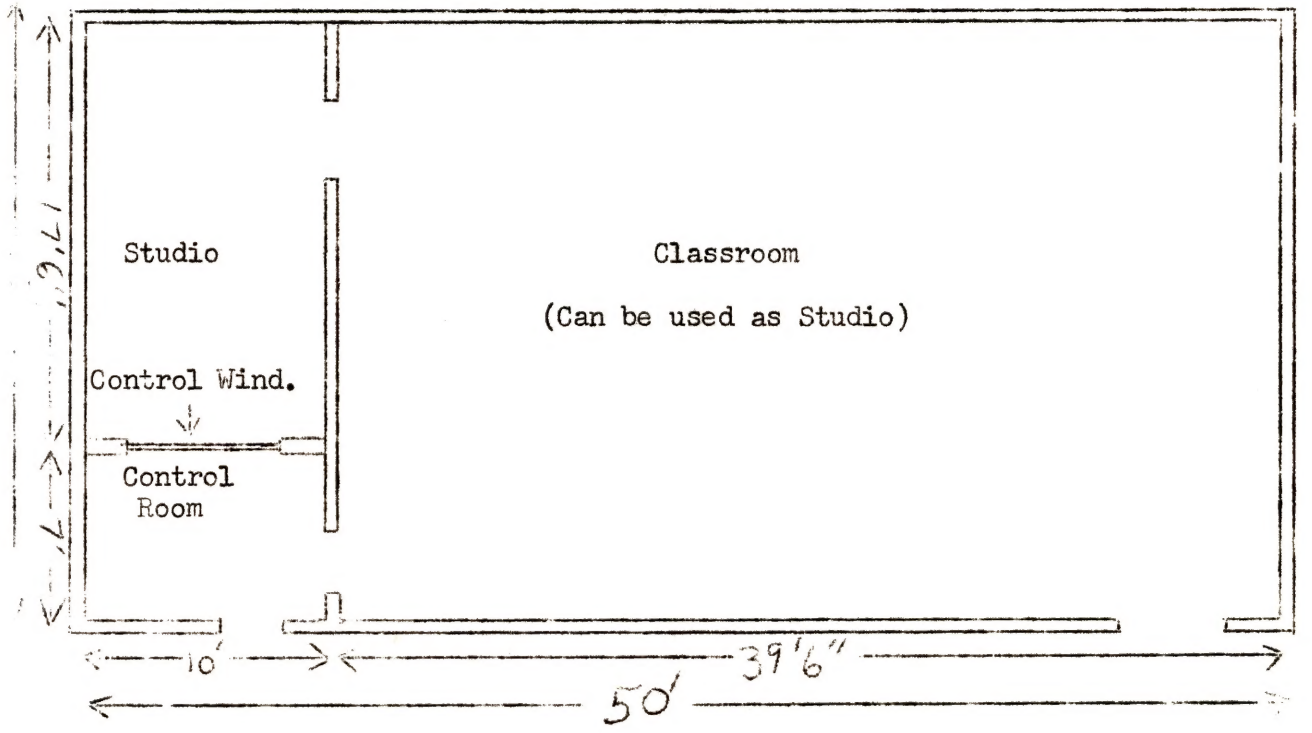
Scale: 1" = 8'0"



10 Watt School Station

WYSN
New Castle, Indiana

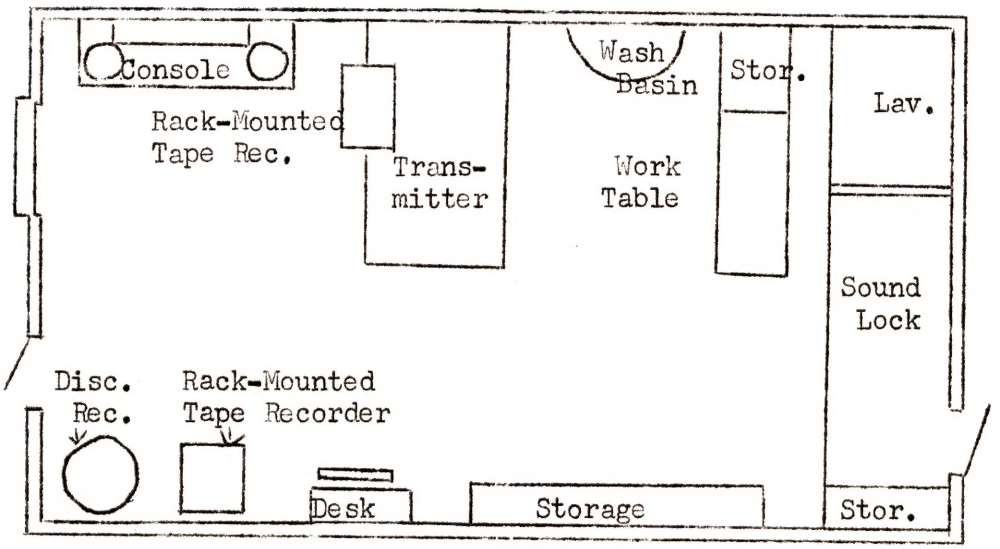
Scale: 1" = 8'0"



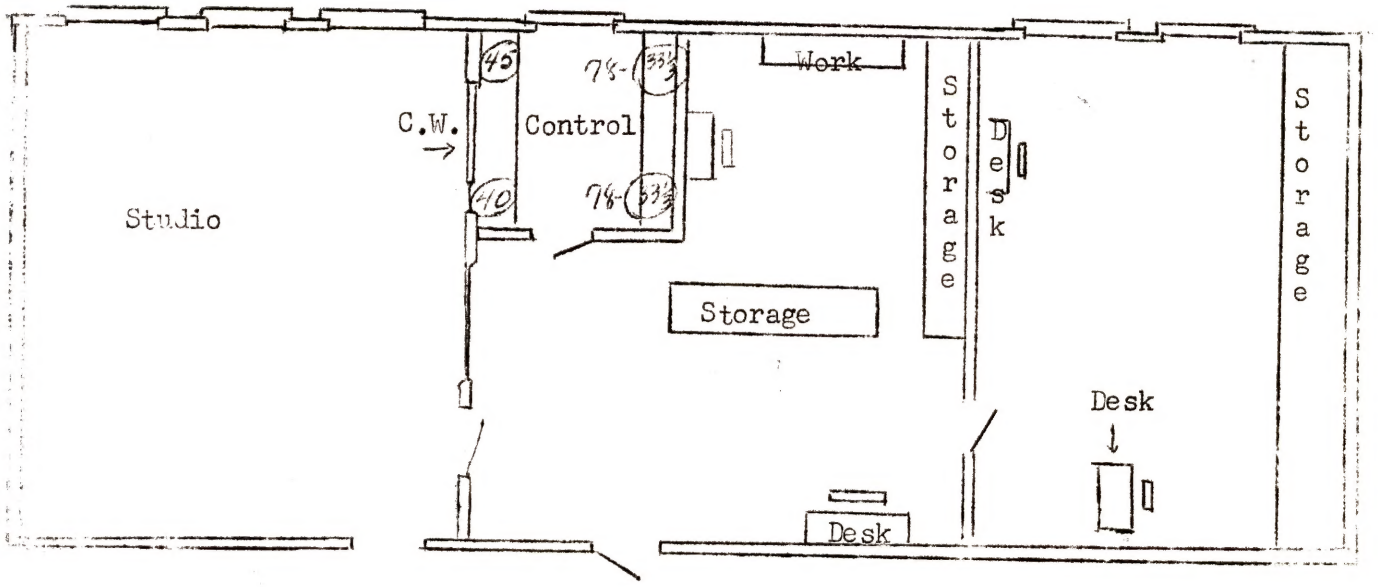
250 Watt School Station

KBPS
Portland, Oregon

Approx. drawn. No Scale



Transmitter Room

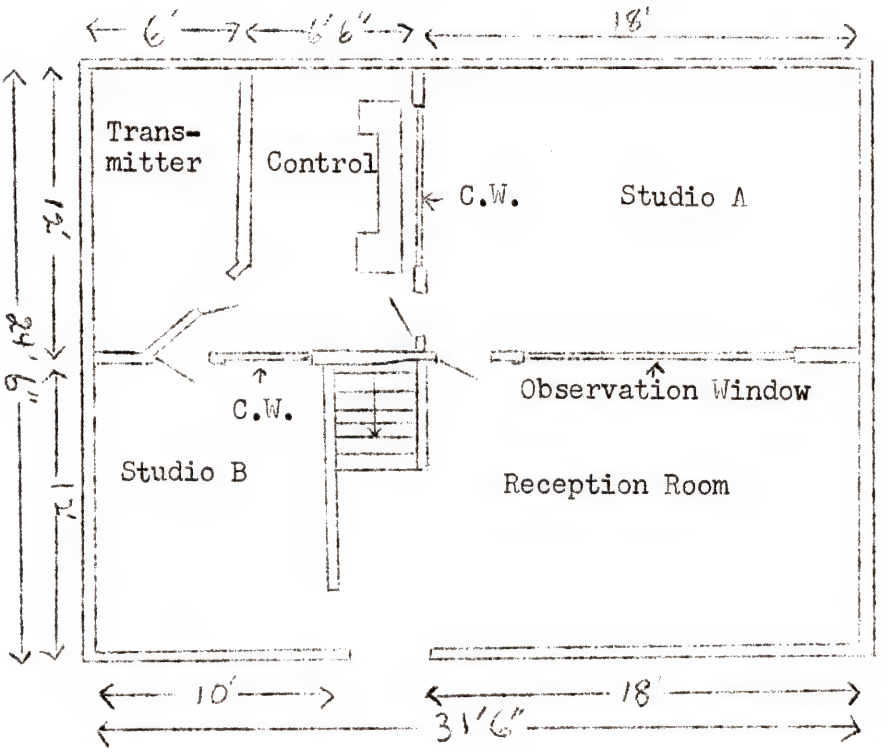


Studio and Offices

(These two have been separated by a block and a half)

350 Watt School Station

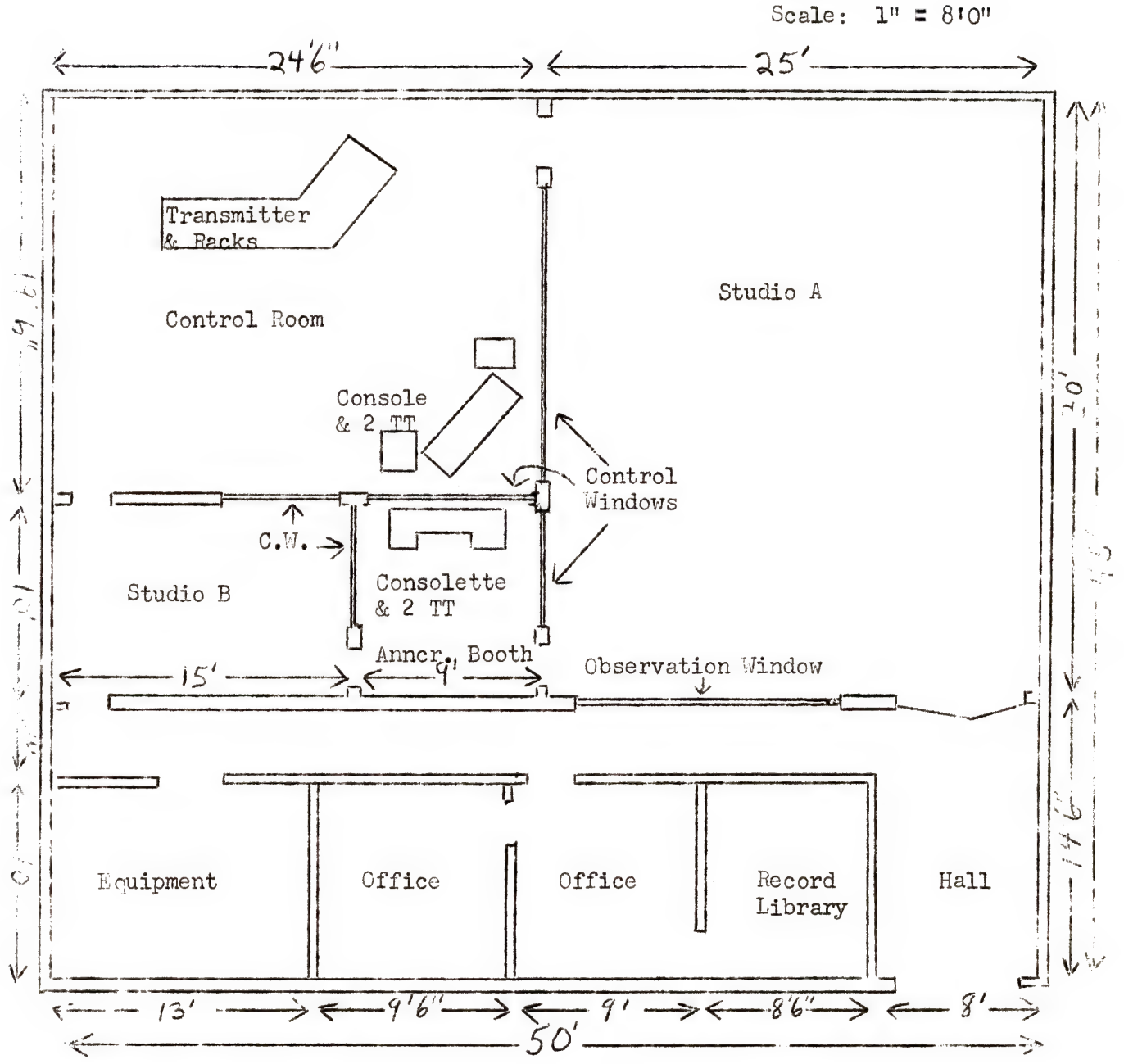
WSHS
Floral Park, New York



Scale: 1" = 8'0"

400 Watt School Station

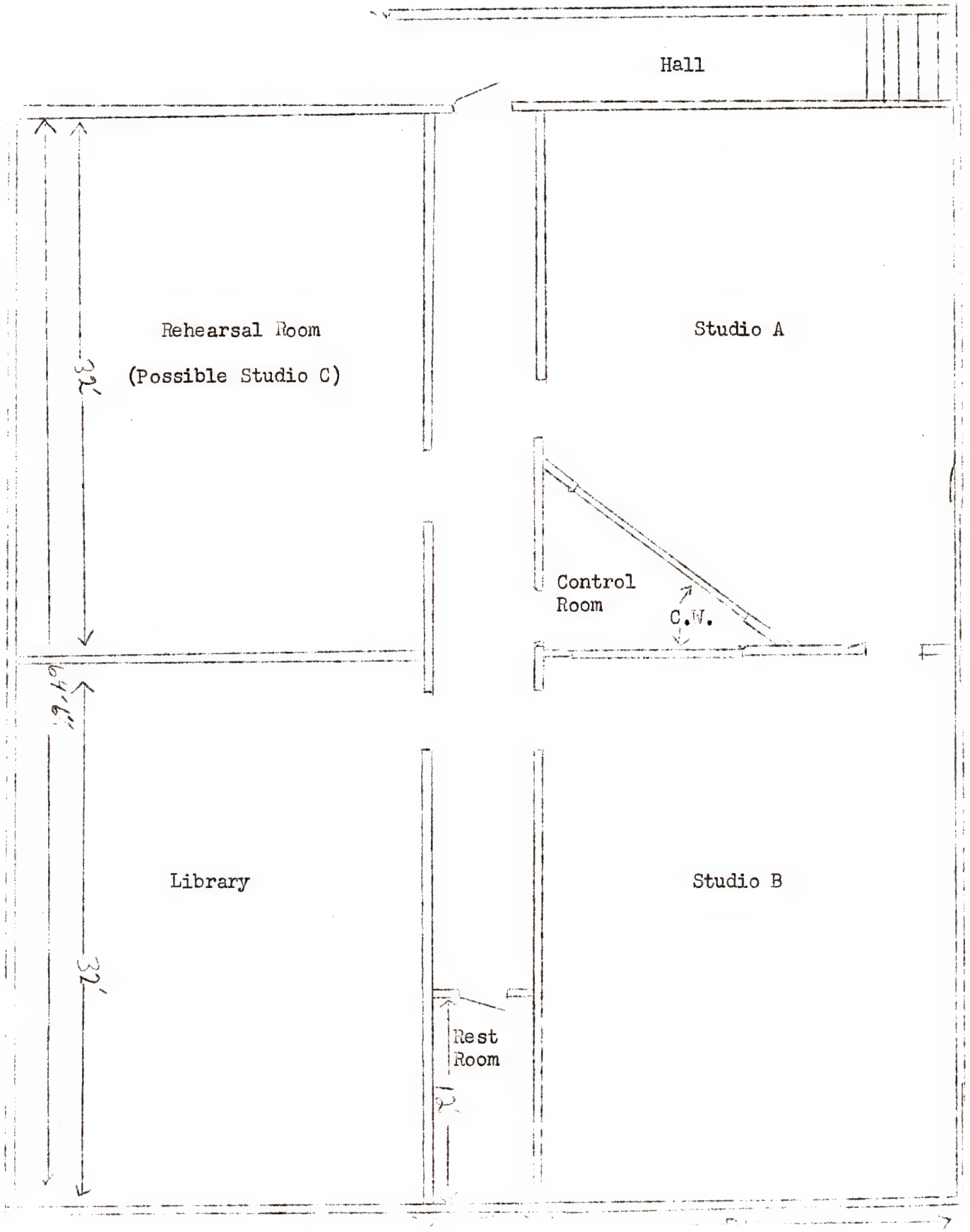
KSDS
San Diego, California



730 Watt School Station

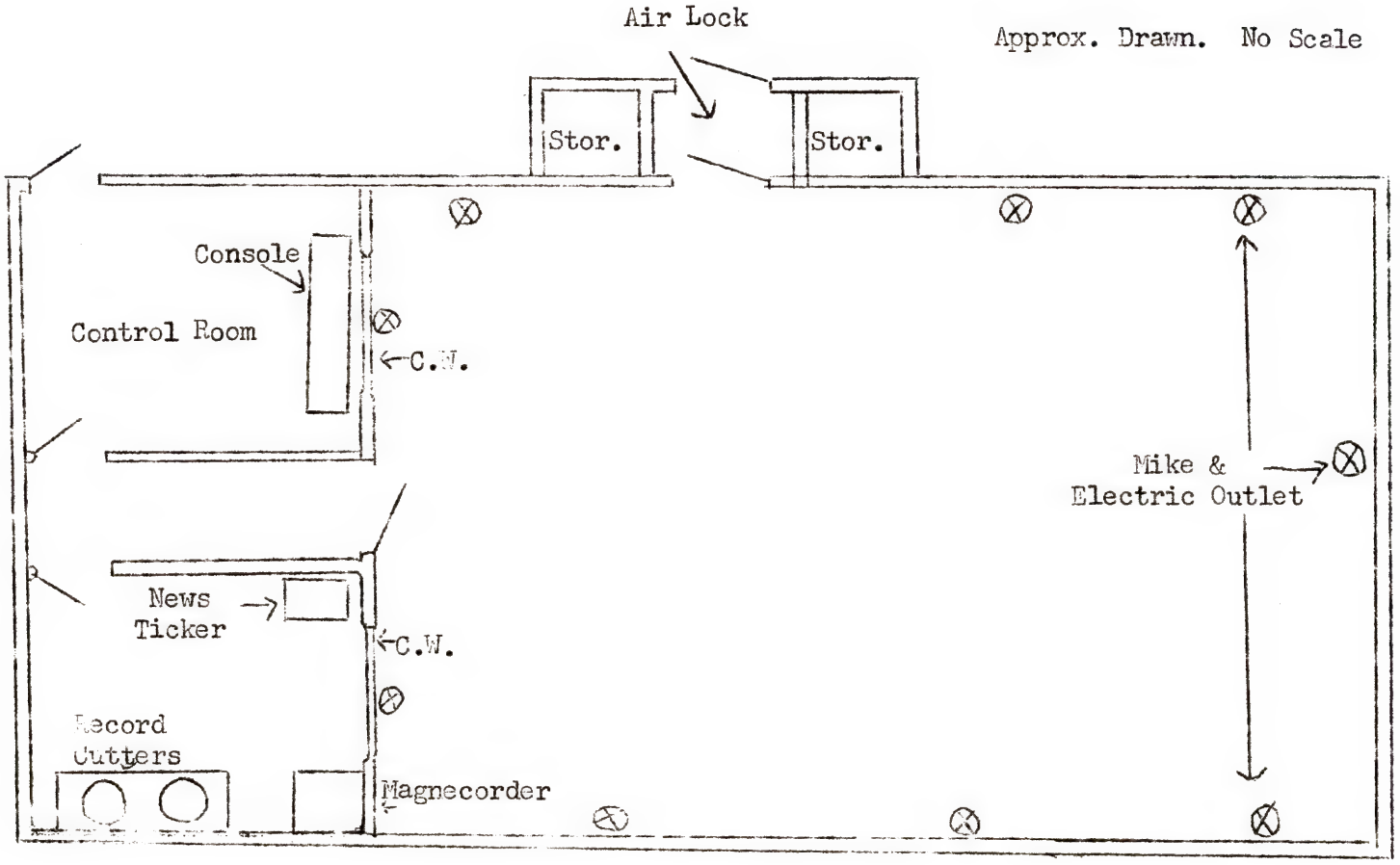
WTDS
Toledo, Ohio

Scale: 1" = 8'0"



1500 Watt School Station

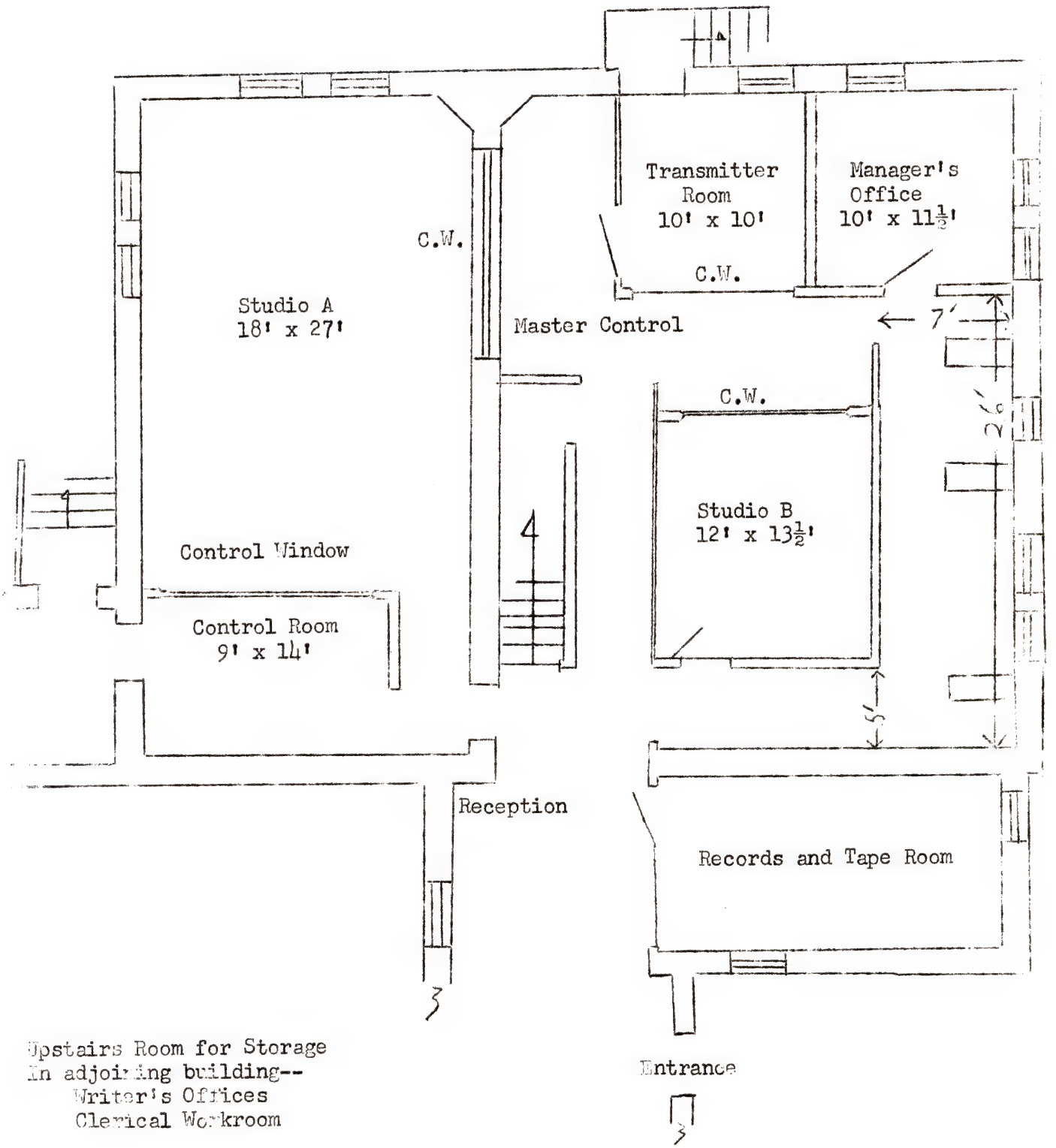
KDPS
Des Moines, Iowa



1500 Watt School Station

WFBE
Flint, Michigan

Approx. Scale: 1" = 8'0"



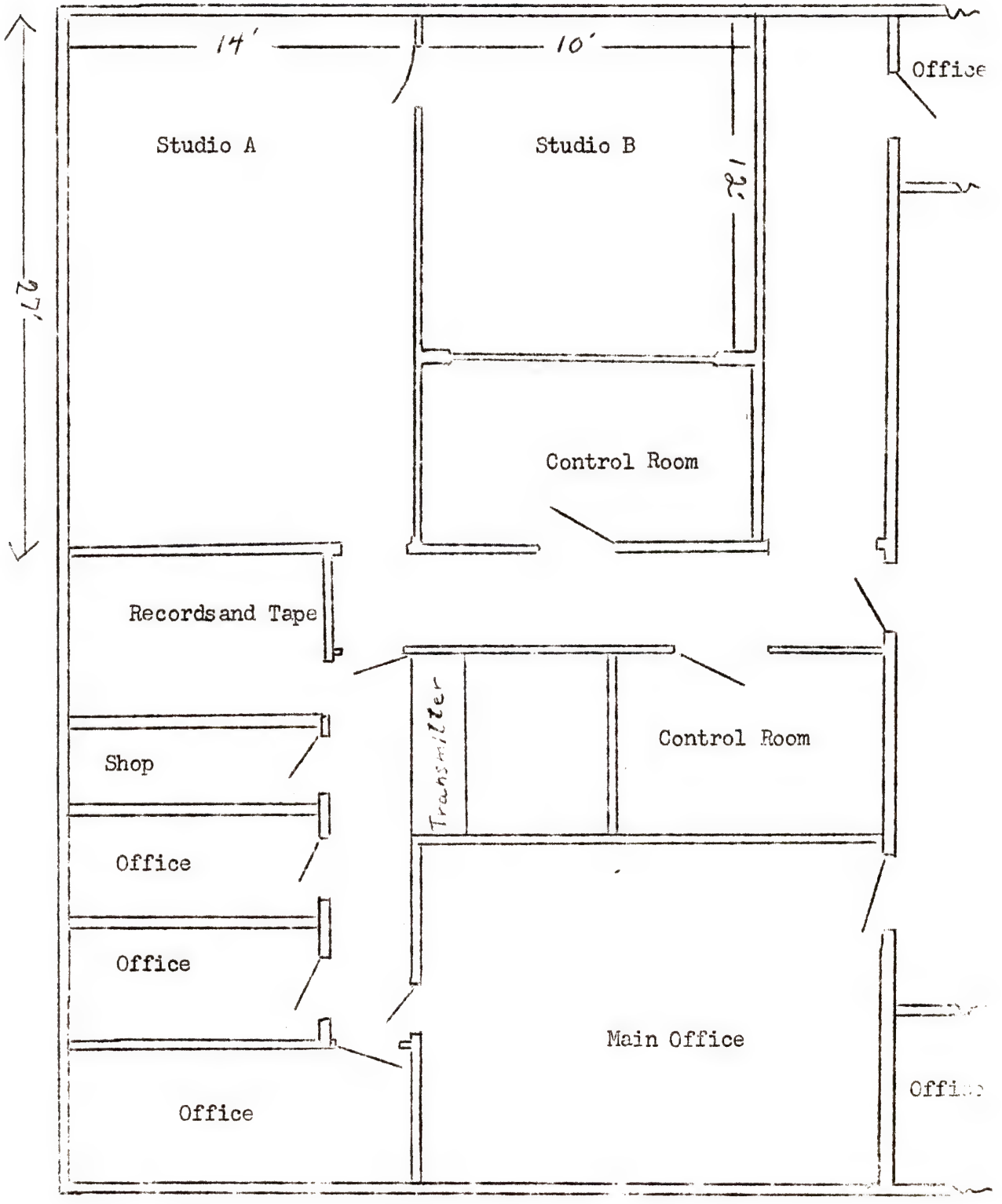
4000 Watt School Station
KTOY
Tacoma, Washington

Approx. drawn. No Scale

4800 Watt School Station

WABE
Atlanta, Georgia

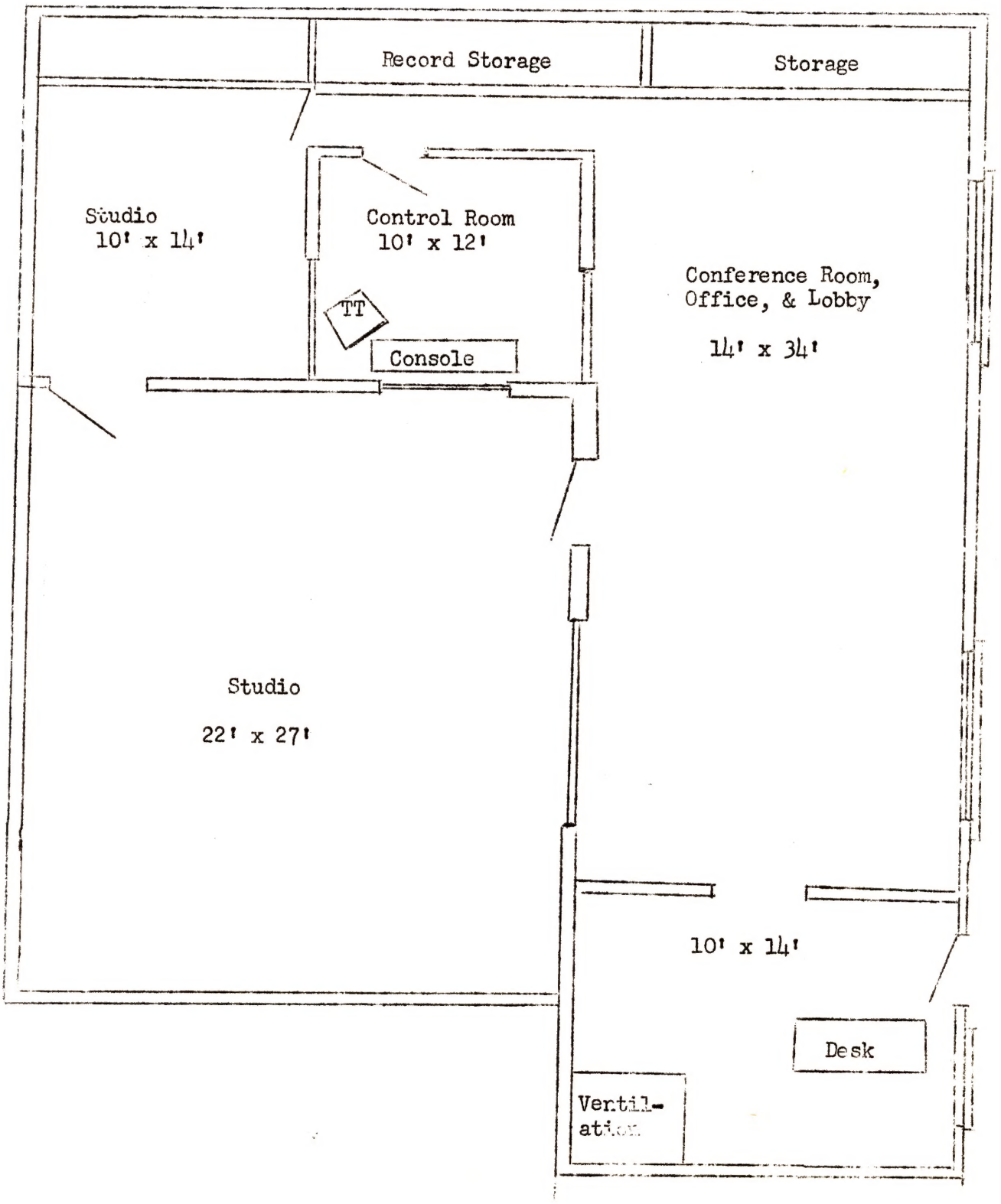
Approx. drawn. No Scale



10,000 Watt School Station

KOKH
Oklahoma City, Oklahoma

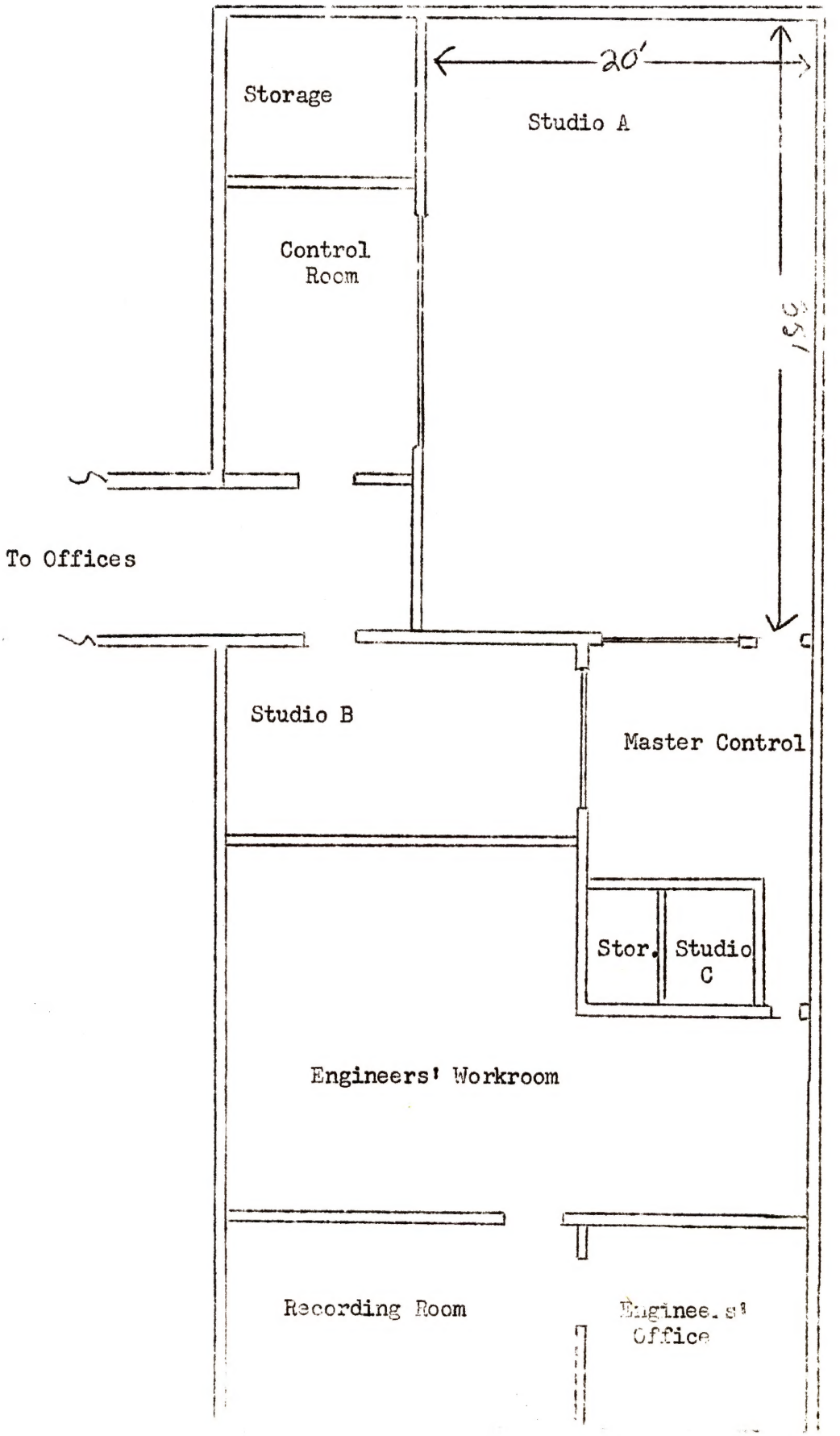
Approx. Drawn. No Scale



12,500 Watts School Station (m)

KSLH
St. Louis, Missouri

Drawn to no scale



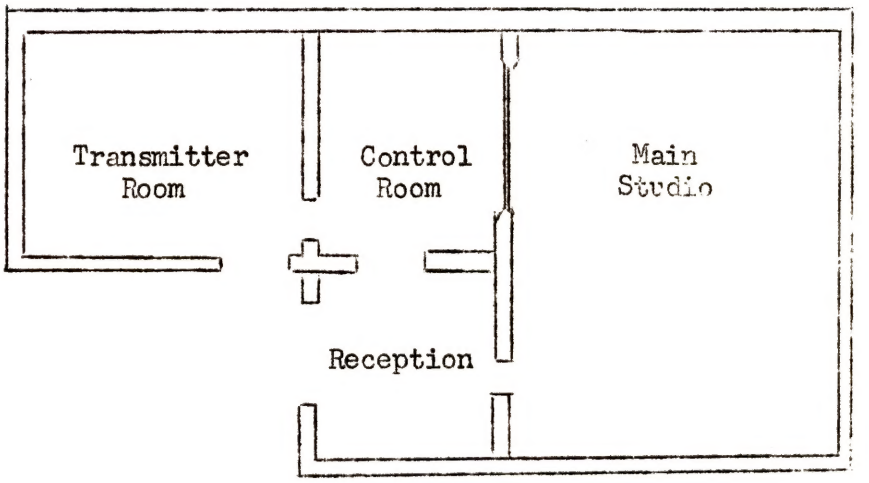
20,000 Watt School Station

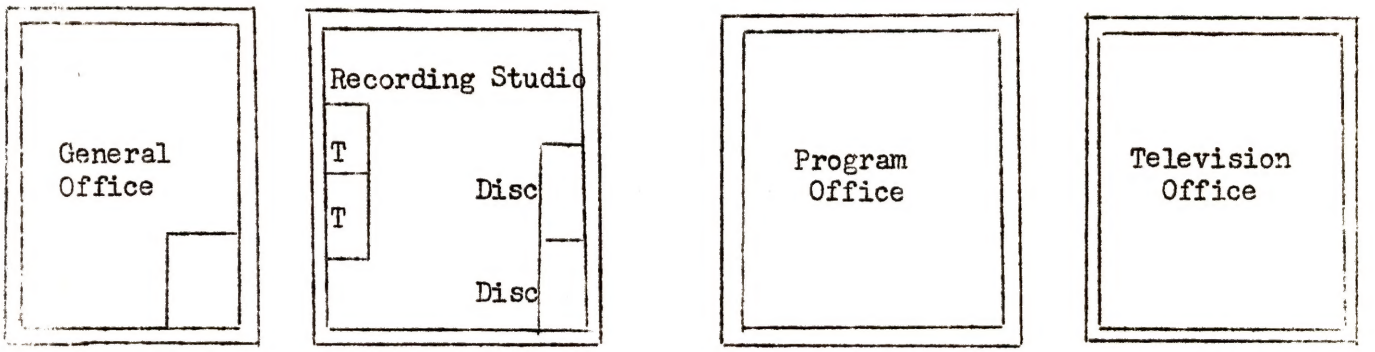
WNYE
New York, New York

No Scale

10th Floor

8th Floor

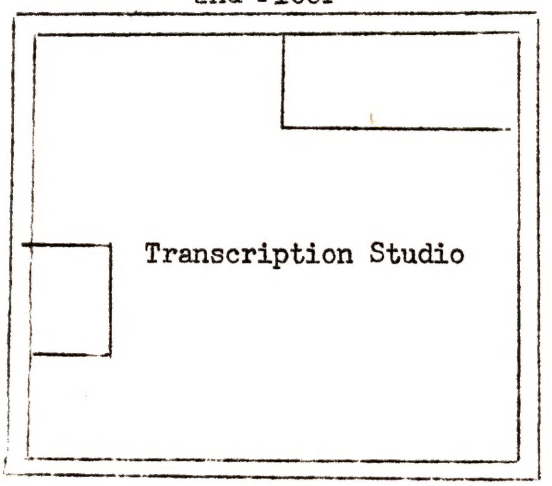




6th Floor

5th Floor

2nd Floor



The lack of centralization is the big fault with this arrangement.

Scanned from the National Association of Educational Broadcasters Records
at the Wisconsin Historical Society as part of
"Unlocking the Airwaves: Revitalizing an Early Public and Educational Radio Collection."

A collaboration among the Maryland Institute for Technology in the Humanities,
University of Wisconsin-Madison Department of Communication Arts,
and Wisconsin Historical Society.

Supported by a Humanities Collections and Reference Resources grant from
the National Endowment for the Humanities

MITH MARYLAND INSTITUTE FOR TECHNOLOGY IN THE HUMANITIES

UNIVERSITY OF MARYLAND

WISCONSIN HISTORICAL SOCIETY

WISCONSIN UNIVERSITY OF WISCONSIN–MADISON

NATIONAL ENDOWMENT FOR THE Humanities

Any views, findings, conclusions, or recommendations expressed in this publication/collection do not necessarily reflect those of the National Endowment for the Humanities.